

Unit Planning Guide: Grade K Unit 3 of 4

Unit Title: <i>Number Sense & Geometry</i>	Pacing (<i>Duration of Unit</i>): <i>10 Weeks</i>
Grade: <i>Kindergarten</i>	Buffer Day(s):

Desired Results	
Transfer Goals	
<p><i>Students will be able to independently use their learning to:</i></p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. • Look for and express regularity in repeated reasoning. 	
Established Goals (2011 MA Curriculum Frameworks Standards Incorporating the Common Core State Standards)	
<p>Standards (Priority Standards in bold):</p> <ul style="list-style-type: none"> • G.3- Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”). • G.4- Analyze and compare two and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/”corners”) and other attributes. • G.5- Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. • G.6- Compose simple shapes to form larger shapes. • MD.3- Classify objects into given categories; count the number of objects in each category and sort the categories by count. • CC.7- Compare two numbers between 1 and 10 presented as written numerals. • NBT.1- Compose and decompose numbers from 11-19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. <ul style="list-style-type: none"> ○ CC.1: Count to 100 by ones and by tens. ○ CC.2: Count forward beginning from a given number within the known sequence (instead of having to begin at 1). ○ CC.3: Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects). ○ G.1: Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as <i>above</i>, <i>below</i>, <i>beside</i>, <i>in front of</i>, <i>behind</i>, and <i>next to</i>. 	<p>WIDA for English Language Learners</p> <p>Standard 1: ELLs communicate for Social and Instructional purposes within the school setting</p> <p>Standard 3: ELLs communicate information, ideas and concepts necessary for academic success in the content area of Mathematics</p> <p>In the lesson planning stage, teachers will need to differentiate lessons for ELLs. In order to accomplish this they will need: 1.) this curriculum map, 2.) a list of their ELLs and their proficiency levels, and 3.) appropriate language function expectations and scaffolds or supports.</p>

- G.2: Correctly name shapes regardless of their orientations or overall size.

Meaning (*Mostly assessed through Performance Tasks/Assessments)

Big Ideas: *(Statements and concepts written in teacher friendly language which reflects the important [but not obvious] generalizations we want students to be able to arrive at. These are used by the teacher to focus daily instruction.)*

- Written numerals represent quantities.
- Objects can be classified into multiple categories.
- Shapes can be analyzed, compared, created, and composed.
- Two digit numbers are composed of tens and ones.

Essential Questions: *(Questions which frame ongoing and important inquiries about the big ideas. They are written for students and used in daily instruction to help engage students in meaningful thinking.)*

- How can we breakdown and put together numbers?
- How can we use shapes to form other shapes?
- What is a two-digit number?
- How and why do we compare numbers?

Acquisition (*Mostly assessed through traditional summative assessments)

Knowledge: *Key basic concepts, facts, and key terms (written in phrases) students should be able to recall independently.*

Students will know ...

- That numbers can be presented as written numerals.
- That objects can be classified and sorted.
- That shapes have different sizes and dimensions.
- That two digit numbers are made up of tens and ones.
- That shapes can be put together to create other shapes.

Vocabulary:

Triangle, circle, square, rectangle, rhombus, trapezoid, hexagon, sphere, tens, and ones

Skills: *The discrete skills and process students should be able to use independently (Bloom's Level of Learning should be noted in parentheses.)*

Students will be skilled at:

- Writing numbers 1-10 (Remembering)
- Classifying and sorting different objects and shapes (Understanding)
- Creating two digit numbers using ones and tens (Analyzing)
- Constructing complex larger shapes from simpler ones (Analyzing)
- Counting objects up to 50 (working towards 100) (Remembering)
- Counting forward without beginning at one (working towards 100) (Remembering)
- Naming and describing attributes of shapes (Remembering)